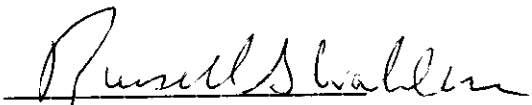
A STUDY OF SPORT SPECTATORSHIP AMONG COLLEGE STUDENTS

An Honors Thesis (HONRS 499)

by

Holly K. Hunter

Thesis Director



Dr. Russell Wahlers

Ball State University

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INTRODUCTION

Throughout history, sports have played an important role in society. It is believed that the first forms of sport in the Western world emerged out of a necessity for survival and religious rituals. This combination of expression did not just reflect the social structures and belief systems of the societies in which they existed, they usually recreated and reaffirmed those structures and beliefs (Coakley 44). Because sports are so closely tied to the social structure and belief system of people in a given society, it is little wonder that sports have undergone a number of changes throughout history as well (Coakley 62).

Like the sports of other historical periods, modern sports are the creations of people coping with the conditions of life in their societies. However, never before have sports been as pervasive and influential in the lives of people as they are today; never before have people had so much leisure time; and never before have sports been so closely linked to profit making, character building, patriotism, and personal health. Modern sports have become a combination of business, entertainment, education, moral training, and declaration of political allegiance. This is what has made the sports of today so completely unique in the history of sports (Coakley 63).

With this new view of sports as a business and entertainment venture and with societies leisure time increasing, the revenue generating aspects of sports are quite undefined. Therefore, knowledge sought as to some definitive characteristics of the consumption of this type of entertainment is constantly being requested. In order for any business or

organization to survive and prosper, an understanding of those who consume its product or service is necessary. Since spectator sports represent an economic enterprise or an organization seeking a market, such concerns will exits for them as well (Etzel and Gaski 26).

This brings the researcher to the point of this particular study. In an effort to better understand the type of consumer who frequents specific sporting events, an exploratory study was conducted. By type of consumer it is meant the certain psychographic and demographic factors that characterize a particular consumer. This study was intended to profile and describe a specific segment of sport consumers, namely college students, through the means of a survey.

The primary reason a survey method was chosen for examining a segment of college students was because of the lack of research available on this consumer group. The researcher felt by identifying college students' perceptions of sports and some appropriate demographic variables, interested parties may use the results to help better identify the individuals who attend collegiate sporting events.

METHODOLOGY

The present research obtained responses of self-administered questionnaires from 36 students, 14 males and 22 females, at Ball State University. Students were obtained by selecting them randomly at the university. The intent was to get as diversified a sample of students as possible with regards to their orientation towards sports and certain demographic factors.

The survey was broken into three sections which measured seven different collegiate sporting events. The seven sporting events were comprised of basketball, football, baseball, volleyball, swimming, track, and tennis. The first section of the survey asked the subjects to rate several pairings of the seven sporting events on a nine-point Likert type response continua. The subjects were asked how similar or dissimilar they felt the sporting events comprising each pair were to each other and to rate them accordingly.

The results obtained from this section of the survey were then plotted onto a computer grid in the form of a map to indicate the subjects perception of collegiate sporting events in their relation to one another.

The second section of the survey concentrated on the perception each subject had towards each individual sporting event from a spectator's viewpoint. They were asked to rate each of the seven sporting events against ten descriptive adjectives. The rating scale used was an eleven-point Likert type response continua, and the subjects were to rate the degree to which they either agreed or disagreed with each adjective in relation to each of the seven sporting events.

This section of the survey allows for the map's dimensionality. By separating the seven sports and individually pairing them to the descriptive adjectives, the respondent's viewpoint to each sporting event was graphed onto the computer.

The third and final section of this survey consisted of certain demographic and psychographic variables. This section was to better isolate the results obtained from the first and second sections of the survey into homogeneous segments of college students. This section of the survey is necessary in meeting the objectives set in this collegiate study.

The survey in its entirety is located in Appendix 1.

FINDINGS

In analyzing the results of the study, I first created a similarities matrix for the seven sporting events (Table 1). It was found that basketball and volleyball were perceived by the respondents as the most similar pairing. The second most similar pairing was basketball and football, and the third most similar pairing was volleyball and tennis.

At the other end of the spectrum, football and swimming were perceived by the respondents as the most dissimilar pairing of all the sporting events. Coming in a close second, basketball and swimming were perceived as the second most dissimilar pairing.

To add dimension to the seven sporting events being compared, each sporting event was placed against a descriptive adjective. Since much research has not been conducted in this area, I referred to two similar studies that had been conducted. These studies comprised the basis from which the ten adjectives evolved.

It was necessary to individually rate each sporting event with each adjective to generate the respondent's perception of each sporting event on an individualized basis. The rating that each respondent gave to each sporting event in relation to a particular adjective was compiled together to get an overall average rating. This was done for each sporting event against each adjective.

From there the averaged ratings were factor analyzed. I analyzed the factors in only one dimension; however, the results proved that many of the ten adjectives were closely interrelated. With many of the adjectives being interrelated, it was necessary to find underlying factors

that would group some of the adjectives together.

I then analyzed the data in two dimensions. This lowered the Kurskal stress value to .069 which is considered very good (Krampf 157). It seemed quite apparent from the data that two dimensions were definitely more definitive than just one dimension. However, it appeared that even with two dimensions some crossloading was occurring with some of the adjectives. Meaning, some adjectives had equal weights in both dimensions. Therefore, I tried factoring in three dimensions.

Three dimensions lowered the Kurskal stress value even farther, yet it did not add any new weight in the third dimension. This led me to the conclusion that factoring in two dimensions was the proper choice. The two-dimensional scale gave me readings for each sporting event in each dimension. A high absolute reading in one dimension meant that the sporting event was strongly loaded in that particular dimension. If the sporting event was equally weighted, however, it meant that the perceptions of the respondents for that sporting event were neutral in each dimension.

Taking the coordinates from each sporting event which can be seen in Table 2, I was able to plot the seven sports in relation to each dimension as seen in Figure 1. From the two-dimensional multidimensional scaling configuration it can be assessed that football, tennis, and swimming had stronger scores in dimension two than did basketball, baseball, or track. However, volleyball showed no loading either negatively or positively in relation to the second dimension.

In the first dimension, though, volleyball showed a strong negative loading along with swimming and track. Basketball, football, and baseball showed positive loadings in relation to the first dimension. Tennis

showed a positive loading as well, however, not strongly in comparison to the other sporting events.

With the plotting of the sporting events on the two-dimensional MDS configuration, the relationship of each of the sporting events to each dimension can be easily seen. The next crucial step, however, is to figure out what each of the dimensions represent. This takes us back to the factoring analysis of the ten adjectives in relation to the seven sports.

As can be seen in Table 3, the correlation between the two-dimensional MDS configuration coordinates and the descriptive adjectives are quite non-definitive. The results offer no discriminating relationship between the two, in part because of the closely interrelated adjectives. Therefore, I factor analyzed the descriptive adjectives hoping to come up with more organized data.

As was stated earlier, among the ten adjectives some were loaded equally among each factor. Therefore, their importance in establishing a discriminating label for each dimension is small. Since their importance is minute and it is important to find the underlying discriminating variables that comprise each of the two factors, I eliminated the two adjectives from the data. The two adjectives eliminated were exciting and frustrating; the other adjectives were retained. The remaining eight adjectives held strong loadings in either the first or second factor as seen in Table 4.

A diagram showing each of the eight adjectives in relation to the two factors is found in Figure 2. As can be seen from the diagram within the first factor, social, popular, the opposite of individual, and team adjectives were strongly loaded. Within the second factor, competitive, intense, stimulating, and the opposite of relaxing were strongly loaded.

These results indicate that factor one and factor two are strongly discriminating in each of their respects. However, when placing them with the two dimensions established for the seven sporting events, the results become a little more grey. It can be summated, though, that since volleyball, swimming, and track were perceived as less popular/social sports and they are negatively loaded along the first dimension, that perhaps factor one and dimension one represent the same discriminating variable. When comparing factor two with dimension two, however, the results are not as parallel.

These results lead me to believe that more descriptive adjectives are needed to discriminate the sporting events from each other. Again I composed another correlation table between the two-dimensional MDS configuration coordinates and the principal descriptive adjectives that strongly define both factor one and factor two respectively. This table can be seen in Table 5.

To reiterate, factor one, sport popularity, is strongly weighted in dimension one as well. This leads one to believe there is a strong correlation between the two. However, factor two, sport competitiveness, is not weighted at all in dimension two and just slightly in dimension one. Meaning that the discriminating variables comprising each factor are not equal to the discriminating variables comprising each dimension.

CONCLUSION

This study attempted to investigate the perceptions of a diverse group of college students towards the spectatorship of a select number of collegiate sporting events. The findings indicate that the collegiate spectotor cannot be distinguished by a demographic profile. More importantly than that, it is evident that the number of descriptive adjectives used to generate perceptions toward the seven sporting events will need to be increased in order to assure more discriminating perceptions toward each particular sporting event. Although these results added to the gained knowledge of the consumption of collegiate sports among college students, it did not successfully define this segment nor their perceptions toward college sporting events.

EXHIBITS:

tables 1-5
figures 1&2

Table 1

Similarities Matrix for Seven Collegiate Sports

	Basketball	Football	Volleyball	Swimming	Track	Tennis	Baseball
Basketball	X	X	X	X	X	X	X
Football	.22	X	X	X	X	X	X
Volleyball	.56	-1.11	X	X	X	X	X
Swimming	-2.50	-2.61	-1.61	X	X	X	X
Track	-1.78	-1.00	-1.22	-.28	X	X	X
Tennis	-1.39	-1.83	.06	-1.11	-.67	X	X
Baseball	-.83	-.11	-.78	-2.00	-.39	-.72	X

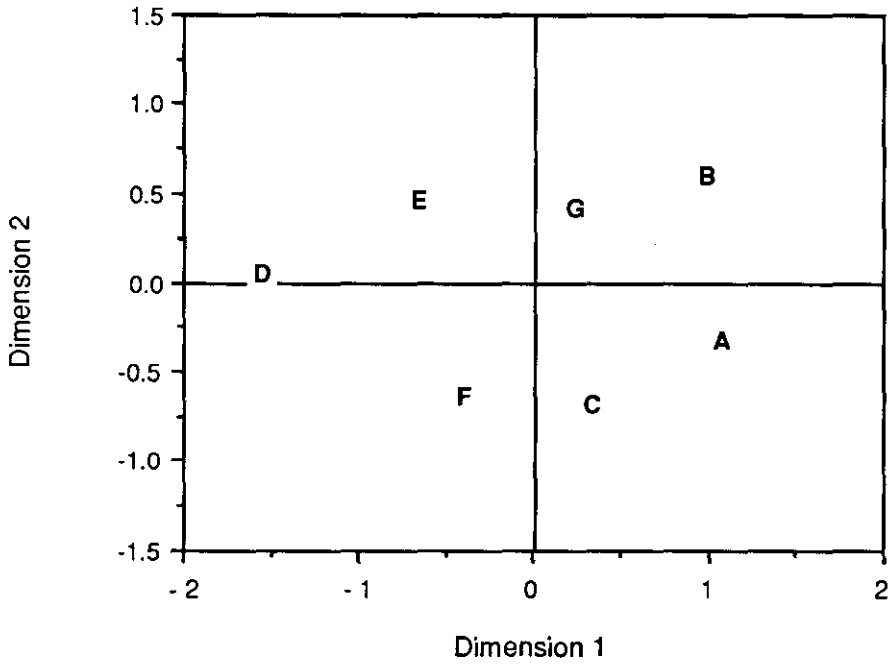
Table 2

2-Dimensional MDS Configuration Coordinates

Collegiate Sports Event	Perceptual Configuration Dimension 1	Dimension 2
Basketball	1.07	-.27
Football	.97	.60
Volleyball	.32	-.68
Swimming	-1.56	.07
Track	-.64	.49
Tennis	-.39	-.64
Baseball	.23	.43

Figure 1

2-Dimensional MDS Configuration of Collegiate Sports



Key:
A = Basketball
B = Football
C = Baseball
D = Volleyball
E = Swimming
F = Track
G = Tennis

Table 3

Correlations Between 2-Dimensional Configuration Coordinates and Descriptive Adjectives

Descriptor	Dimension 1	Dimension 2
Social	.530	.131
Competitive	.107	-.107
Exciting	.495	.119
Stimulating	.412	.294
Relaxing	-.350	.002
Intense	.213	.245
Frustrating	.548	.047
Popular	.773	-.048
Team Oriented	.286	-.109
Individual	-.323	.039

Table 4

Principal Component Analysis of
Adjectives Describing Collegiate Sports Events
(Varimax Rotated Loadings)

	Principal Components	
Descriptor	Factor 1	Factor 2
Individual	-.977	---
Social	.962	---
Team Oriented	.952	---
Popular	.894	---
Competitive	---	.937
Intense	---	.925
Stimulating	---	.797
Relaxing	---	-.764

Note: Factor loadings less than .500 have been omitted.

Figure 2

Graph of Descriptive Adjective Principal Component Analysis

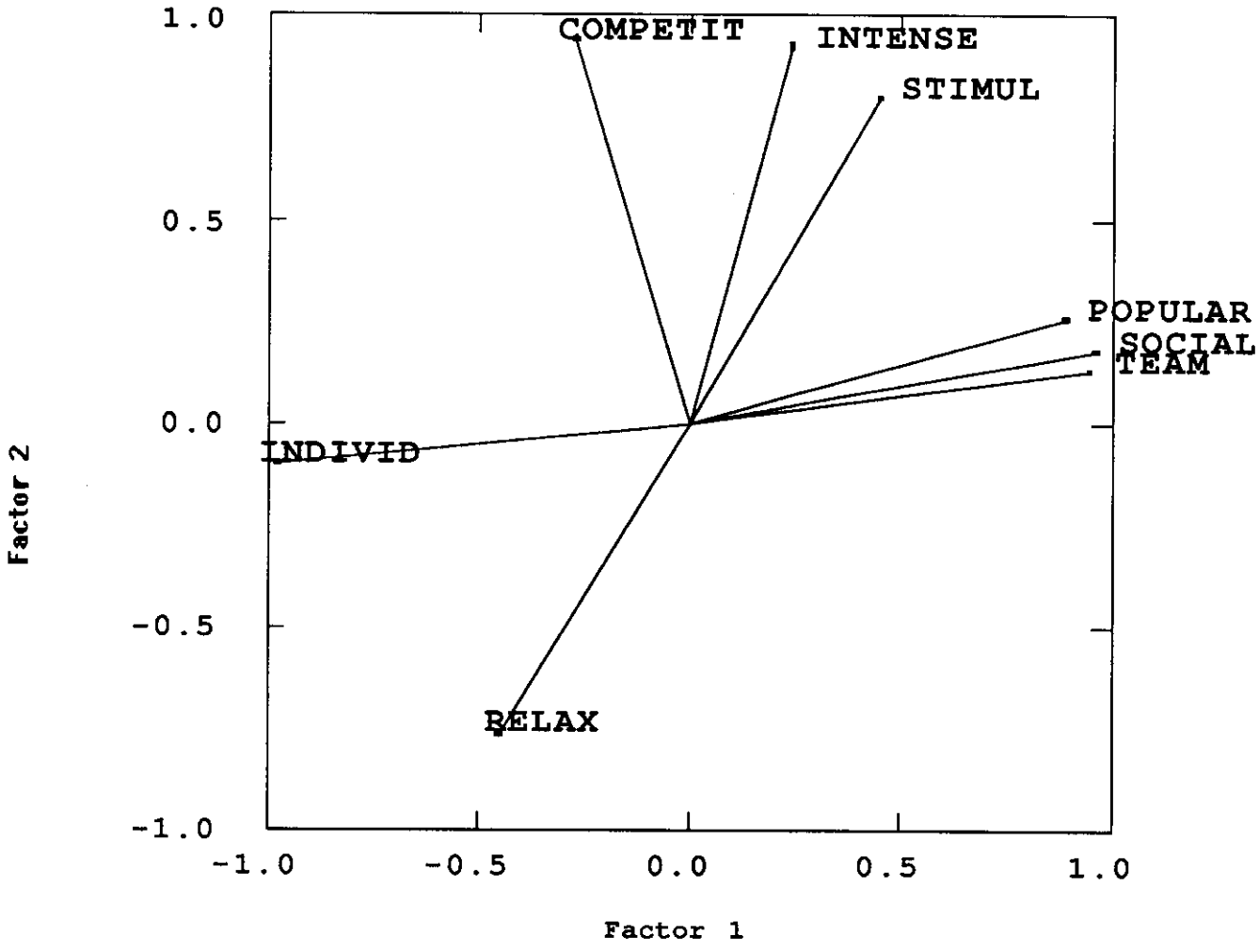


Table 5

Correlations Between 2-Dimensional Configuration Coordinates and Descriptive Adjective Principal Components

Factor	Dimension 1	Dimension 2
1: Sport Popularity	.714	.357
2: Sport Competitiveness	.179	.000

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APPENDIX 1:

the survey

Directions:

The following are several pairs of collegiate spectator sports. For each pair, circle the scale value at the right that reflects how dissimilar or similar you feel that the sporting events comprising that pair are to each other. Please keep in mind that we are interested in your opinion as a spectator. For example, circle a high rating if you feel that the sporting events in a pair are "very similar. Likewise, a dissimilar pair would be given a lower rating.

SPORTING EVENTS			very dissimilar								very similar
1. Football	vs.	Basketball	-4	-3	-2	-1	0	+1	+2	+3	+4
2. Baseball	vs.	Basketball	-4	-3	-2	-1	0	+1	+2	+3	+4
3. Volleyball	vs.	Basketball	-4	-3	-2	-1	0	+1	+2	+3	+4
4. Swimming	vs.	Basketball	-4	-3	-2	-1	0	+1	+2	+3	+4
5. Track	vs.	Basketball	-4	-3	-2	-1	0	+1	+2	+3	+4
6. Tennis	vs.	Basketball	-4	-3	-2	-1	0	+1	+2	+3	+4
7. Baseball	vs.	Football	-4	-3	-2	-1	0	+1	+2	+3	+4
8. Volleyball	vs.	Football	-4	-3	-2	-1	0	+1	+2	+3	+4
9. Swimming	vs.	Football	-4	-3	-2	-1	0	+1	+2	+3	+4
10. Track	vs.	Football	-4	-3	-2	-1	0	+1	+2	+3	+4
11. Tennis	vs.	Football	-4	-3	-2	-1	0	+1	+2	+3	+4
12. Volleyball	vs.	Baseball	-4	-3	-2	-1	0	+1	+2	+3	+4
13. Swimming	vs.	Baseball	-4	-3	-2	-1	0	+1	+2	+3	+4
14. Track	vs.	Baseball	-4	-3	-2	-1	0	+1	+2	+3	+4
15. Tennis	vs.	Baseball	-4	-3	-2	-1	0	+1	+2	+3	+4
16. Swimming	vs.	Volleyball	-4	-3	-2	-1	0	+1	+2	+3	+4
17. Track	vs.	Volleyball	-4	-3	-2	-1	0	+1	+2	+3	+4
18. Tennis	vs.	Volleyball	-4	-3	-2	-1	0	+1	+2	+3	+4
19. Track	vs.	Swimming	-4	-3	-2	-1	0	+1	+2	+3	+4
20. Tennis	vs.	Swimming	-4	-3	-2	-1	0	+1	+2	+3	+4
21. Tennis	vs.	Track	-4	-3	-2	-1	0	+1	+2	+3	+4

Directions:

We are interested in your perceptions of various sporting events in terms of several selected characteristics.

As a spectator, to what extent do you feel that each of the following sports can be described by the adjective "SOCIAL"? (Circle a value)

SPORTING EVENT	strongly disagree										strongly agree
a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "COMPETITIVE"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "EXCITING"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "STIMULATING"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "RELAXING"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "INTENSE"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "FRUSTRATING"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "POPULAR"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "TEAM-ORIENTED"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

by the adjective "INDIVIDUALLY-ORIENTED"?

a. Basketball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
b. Football	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
c. Baseball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
d. Volleyball	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
e. Swimming	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
f. Track	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
g. Tennis	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

Directions:

In order to help us better understand the results from the previously asked questions, it is important for us to ask you some questions about yourself. These questions are not intended to be personal, and if at any time you feel that you do not with to answer a question, please feel free to skip the question and go on to the next one.

1. Are you Male ___ or Female ___

2. What is the approximate population of your hometown?

3,000 or less	___	3,001 to 10,000	___
10,001 to 20,000	___	20,001 to 50,000	___
50,001 to 100,000	___	100,001 to 300,000	___
300,001 or more	___		

3. What is your marital status? married ___ single ___

4. How often do you **attend** each of the following collegiate sporting events in one year?

1. Basketball	0-2	___	3-6	___	7-10	___	11 or more	___
2. Football	0-2	___	3-6	___	7-10	___	11 or more	___
3. Baseball	0-2	___	3-6	___	7-10	___	11 or more	___
4. Volleyball	0-2	___	3-6	___	7-10	___	11 or more	___
5. Swimming	0-2	___	3-6	___	7-10	___	11 or more	___
6. Track	0-2	___	3-6	___	7-10	___	11 or more	___
7. Tennis	0-2	___	3-6	___	7-10	___	11 or more	___

5. Do you feel sports are an important part of university life?
   yes ___ no ___

6. Do you feel a strong athletic program helps unify the student body?
   yes ___ no ___

7. Do you feel that through sports you can learn behavior important to help you succeed in life?
   yes ___ no ___